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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/789,694	02/27/2004	Stephen M. Potter	3932	9316

22474 7590 10/14/2009

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EXAMINER	
MCGUTHRY BANKS, TIMA MICHELE	
ART UNIT	PAPER NUMBER
1793	

NOTIFICATION DATE	DELIVERY MODE
10/14/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patlaw@worldpatents.com

Office Action Summary	Application No.	Applicant(s)	
	10/789,694	POTTER ET AL.	
	Examiner	Art Unit	
	TIMA M. MCGUTHRY-BANKS	1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 July 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *27-40* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *27-40* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Status of Claims

Claims 1-26 are cancelled, Claims 27-36 and 38-40 are as previously presented and Claim 37 is currently amended.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and In *re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 27-32 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-5 of U.S. Patent No. 7,175,690 B2 in view of Varajão et al. The claims of US '690 recite a process substantially as presently claimed. However, US '690 does not claim providing a feed with micropores or the water content as in Claim 27. Regarding providing feed with micropores, Varajão et al teaches hematite ore that contains micropores (abstract). It would have been obvious to one of ordinary skill in the art at the time the invention was made to expect that the hematite in U.S. '690 would have micropores, since Varajão et al teaches that this type of hematite can be reduced to produce direct reduced iron (page 1, paragraph 2). Regarding water content, it would be expected that the process of US '690 would result in the same content of water, since the process conditions in the present invention and that of US '690 are substantially the same.

Claim 33 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-5 of U.S. Patent No. '690 in view of Varajão et al as applied to Claims 27 and 29 above, and further in view of the publication by U.S.S. US '690 in view of Varajão et al substantially claims the same invention. However, US '690 in view of Varajão et al does not claim storing the lump feed material of at least one month as in Claim 33. U.S.S. teaches storing approximately 6 month's supply near the furnaces (pp. 570-71). Six month's supply is within the range of at least one month. Although this storage requirement is discussed in relation to blast furnace production, the same would be expected for any facility utilizing the same feed material. It would have been obvious to one of ordinary skill in the art at the time the invention was made to store the feed materials as taught by U.S.S., since ores are not often

mined during the colder months. Further regarding the stockpile, it would have been obvious to one of ordinary skill in the art at the time the invention was made that the ore stockpile in U.S.S. would be further fed to a bin in order to use the ore for processing.

Claims 34-36 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-5 of U.S. Patent No. '690 in view of Varajão et al and U.S.S. US '690 substantially claims the present invention. However, US '690 does not claim providing a feed with micropores, the water content or storing the lump feed material of at least one month as in Claim 34. Regarding providing feed with micropores, Varajão et al is applied as stated above.

Regarding the water content, it would be expected that the process of US '690 would result in the same content of water, since the process conditions in the present invention and that of US '690 are substantially the same.

Regarding storing the feed material, U.S.S. is applied as stated above.

Claims 37-40 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-5 of U.S. Patent No. '690 in view of Varajão et al, U.S.S and JP 01152225. US '690 substantially claims the same invention as defined in the present claims. However, US '690 does not claim providing a feed with micropores, the water content, storing the lump feed material of at least one month or the step of reclaiming as in Claim 37. Regarding providing feed with micropores, Varajão et al is applied as stated above.

Regarding the water content, it would be expected that the process of US '690 would result in the same content of water, since the process conditions in the present invention and that of US '690 are substantially the same.

Regarding storing the feed material, U.S.S. is applied as stated above.

Regarding the step of reclaiming, JP '225 teaches a device for drying and preheating granular ore, wherein the device is incorporated between the horizontal pipes in the exhaust passage for exhaust gas from the outlet of a prereducing furnace. The ore is dried and preheated by the sensible heat of the exhaust gas, and the combustion heat is charged into the prereducing furnace from an ore feed pipe discharge port and transient storage hopper (English abstract). The ore is partially reduced at 1200 °C (based on oral translation of page 142, column 1). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the process of JP '225 for the step of reclaiming in the process of U.S. Patent No. '690, since JP '225 teaches utilizing the energy of the exhaust gas and sufficiently drying and preheating granular ore (abstract). Regarding Claim 38, it would have been obvious to one of ordinary skill in the art at the time the invention was made to maintain the temperature of the lump feed to the direct reduction process, since any loss of sensible heat would result in an increase in power consumption at the reduction furnace. Regarding Claim 39, the prereducing furnace reads on a direct reduction furnace. Regarding Claim 40, the temperature is 1200 °C, which is greater than 300 °C.

Response to Arguments

The double patenting rejections have been withdrawn with respect to Fujita et al but have been reapplied in light of a new secondary reference, Varajão et al.

Applicant argues that US '690 does not teach the amount of time for the required drying process. However, Claims 27, 35 and 37 all recite "within 30 minutes," and Claim 1 of US '690 recites "within the first 20 minutes," which is within the claimed range. Additionally, applicant states that the drying must be done at less than 200 °C. However, this is not claimed. Claims 27, 35 and 37 all recite "to a temperature of about 200 °C", which is also recited in Claim 1 of US '690. Finally, the argument that the storage releases internal stress and the need to increase drying efficiency, this property is not claimed, and these properties would be inherent in US '690 in view of U.S.S. since the operating conditions are the same as claimed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TIMA M. MCGUTHRY-BANKS whose telephone number is (571)272-2744. The examiner can normally be reached on M-F 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/George Wyszomierski/
Primary Examiner
Art Unit 1793

/T. M. M./
Examiner, Art Unit 1793
9 October 2009